

What is claimed is:

1. An adapter device for holding a blade having a first and a second side onto a distal end of

5 a holder of a spade drill, said adapter comprising:

a body of generally cylindrical configuration, said body having a first and a second extremity,

said body defining a first flute and a second flute disposed diametrically opposite to said first

flute, said body also defining a bore which extends from said second extremity of said body for

10 the flow therethrough of coolant, said body further defining a first and a second branch bore, said

branch bores extending from said bore to said first extremity of said body;

said second extremity of said adapter removably cooperating with the distal end of the holder;

and

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said first extremity of said body defining a diametrical slot disposed between said flutes for the

replaceable reception therein of the blade such that coolant flowing through said first branch

bore is directed towards the first side of the blade and coolant flowing through said second

branch bore is directed towards the second side of the blade.

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2. An adapter device as set forth in claim 1 wherein

said body is fabricated from steel.

3. An adapter device as set forth in claim 1 wherein

5 said first flute permits the flow therethrough of coolant flowing from said first branch bore past the first side of the blade towards the holder;

said second flute permits the flow therethrough of coolant flowing from said second branch bore past the second side of the blade towards the holder.

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4. An adapter device as set forth in claim 1 wherein

said first flute extends from said first extremity to said second extremity of said body;

15 said second flute extends from said first extremity to said second extremity of said body;

5. An adapter device as set forth in claim 1 wherein

said bore has a first and a second termination, said second termination being disposed adjacent to

20 said second extremity of said body.

6. An adapter device as set forth in claim 5 wherein

said first branch bore has a first and a second end, said second end of said first branch bore extending from said first termination of said bore, said first end of said first branch bore being disposed adjacent to said first extremity of said body;

5 said second branch bore has a first and a second extremity, said second extremity of said second branch bore extending from said first termination of said bore, said first extremity of said second branch bore being disposed adjacent to said first extremity of said body.

7. An adapter device as set forth in claim 1 wherein

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said second extremity of said body defines a diametrically extending ridge for the removable reception thereof within a cooperating channel defined by the distal end of the holder such that in use of said adapter device, when the holder is rotated, said ridge and the channel cooperate to drive said body and the blade secured thereto.

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8. An adapter device as set forth in claim 1 wherein

said body includes:

20 an extension which extends away from said second extremity of said body, said extension being removably fastened to the holder.

9. An adapter device as set forth in claim 1 wherein

said diametrical slot includes:

5 a base having a first and a second end;

said slot having a first and a second wall;

said first wall defining a first threaded bore;

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a fastener extending through the blade and threadably cooperating with said first threaded bore
for removably securing the blade within said slot;

said second wall defining a second threaded bore;

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a further fastener extending through the blade and threadably cooperating with said second
threaded bore for removably securing the blade within said slot.

10. An adapter device as set forth in claim 9 wherein

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said body further includes:

a stud disposed between said first and second ends of said base, said stud extending into a recess defined by the blade for locating the blade relative to said adapter device.

11. An adapter device as set forth in claim 1 wherein

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said first extremity of said body defines a first surface where said first branch bore terminates;

said first extremity of said body defines a second surface where said second branch bore terminates.

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12. A spade drill apparatus comprising:

a holder having a distal end;

15 an adapter device including:

a body of generally cylindrical configuration, said body having a first and a second extremity,

said body defining a first flute and a second flute disposed diametrically opposite to said first

flute, said body also defining a bore which extends from said second extremity of said body for

20 the flow therethrough of coolant, said body further defining a first and a second branch bore, said

branch bores extending from said bore to said first extremity of said body;

said second extremity of said adapter device removably cooperating with said distal end of said holder;

a blade having a first and a second side, said blade being removably secured to said first
5 extremity of said adapter device; and

said first extremity of said body defining a diametrical slot disposed between said flutes for the replaceable reception therein of said blade such that coolant flowing through said first branch bore is directed towards said first side of said blade and coolant flowing through said second
10 branch bore is directed towards said second side of said blade.

13. An adapter device as set forth in claim 12 wherein

said distal end of said holder defines a channel;

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said second extremity of said body defines a diametrically extending ridge for the removable reception thereof within said channel defined by the distal end of said holder such that in use of said adapter device, when said holder is rotated, said ridge and said channel cooperate to drive said body and said blade secured thereto.

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14. An adapter device as set forth in claim 13 wherein

said body includes:

an extension of truncated conical configuration, said extension extending away from said ridge;

5 a chamber extending from said channel for the removable reception therein of said extension;

a locking fastener adjustably movable through said holder towards said truncated conical extension such that when said locking fastener is disposed in a locking disposition thereof, said extension is locked within said bore so that said adapter device is secured to said distal end of

10 said holder.

15. A method of securing a blade having a first and a second side relative to a distal end of a holder of a spade drill, said method comprising the steps of :

15 providing an adapter device having a body of generally cylindrical configuration, the body having a first and a second extremity, the body defining a first flute and a second flute disposed diametrically opposite to the first flute, the body also defining a bore which extends from the second extremity of the body for the flow therethrough of coolant, the body further defining a first and a second branch bore, the branch bores extending from the bore to the first extremity of

20 the body;

removably securing the second extremity of the adapter to the distal end of the holder; and

securing the blade to the body, the first extremity of said body defining a diametrical slot disposed between the flutes for the replaceable reception therein of the blade such that coolant flowing through the first branch bore is directed towards the first side of the blade and coolant flowing through the second branch bore is directed towards the second side of the blade.

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